TECHNOLOGY NEEDS/OPPORTUNITIES STATEMENT
METHOD TO PRESERVE B REACTOR EXTERIOR DUCTWORK FOR THE S&M PROGRAM

Identification No.: RL-DD071
Date: August 2001
Program: Surveillance and Maintenance
OPS Office/Site: Richland Operations Office/ Hanford Site
PBS No.: RL-RC01
Waste Stream: N/A
TSD Title: N/A
Waste Management Unit (if applicable): N/A
Facility: 105-B

Priority Rating: This entry addresses the Accelerated Cleanup: Paths to Closure (ACPC) Priority:

____ 1. Critical to the success of the Accelerated Cleanup: Paths to Closure (ACPC)
____ 2. Provides substantial benefit to the ACPC projects (e.g., moderate to high lifecycle cost savings or risk reduction, increased likelihood of compliance, increased assurance to avoid schedule delays)
_X_ 3. Provides opportunities for significant, but lower cost savings or risk reduction, and may reduce uncertainty in ACPC project success.

Need Title: Method to preserve the B Reactor exterior ductwork for the Surveillance and Maintenance (S&M) Program.

Need/Opportunity Category: *Technology need* - there is no existing or currently identified technology capable of meeting the project's need (i.e., no baseline approach has been identified).

Need Description: The ductwork and associated flashing are failing on the B Reactor. Due to the facility's historical significance, it is desired that the visual appearance of the B Reactor be maintained.

Schedule Requirements:
Earliest Date Required: FY 2002
Latest Date Required: Unknown.

Problem Description: The ductwork at B Reactor was protected by an asbestos coating until it was removed 18 years ago. Since then, the ductwork and flashing have corroded to the point that they are a safety concern in the high winds that are experienced on a regular basis. Due to the historical significance of the facility and the prominence of the ductwork, removal of the ductwork may not be allowed without replacement of like-kind material or an aesthetically acceptable solution.

Benefit to the Project Baseline of Filling Need: Preservation of a national historical landmark and assurance of visitor safety.

Functional Performance Requirements: The technology must meet all historical landmark requirements, protect the ductwork and flashing from further deterioration, and maintain safety in high winds (i.e., keep ductwork/sections of ductwork from becoming disconnected in high winds).

WBS No.	***TIP No***.
1.4.03.1.1.02.05.02.01.41	N/A

Relevant PBS Milestone: PBS-MC-030

Justification for Need:

Technical: Preservation/replacement of the ductwork at B Reactor.

Regulatory: Regulations related to historical landmarks.

Environmental Safety & Health: Segments of ductwork that may become disconnected due to high winds pose a safety hazard to visitors of the B Reactor.

Cost Savings Potential (Mortgage Reduction): N/A.

Cultural/Stakeholder Concerns: Two concerns are maintaining a historical landmark and ensuring the safety of visitors.

Other: None identified.

Current Baseline Technology: None.

End User: Environmental Restoration Project

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